CLAIMS:

What is claimed is:

1. A method of executing a hardware dump, comprising:

identifying a set of hardware dump information elements to collect;

calculating an amount of memory to allocate for a dump list based on the identified set of hardware dump information elements;

allocating the calculated amount of memory; and

building the dump list in the allocated memory.

2. The method of claim 1, further comprising:

collecting the hardware dump information elements; and

saving the collected hardware dump information elements in memory.

3. The method of claim 1, wherein the step of identifying a set of hardware dump information elements comprises determining a dump mode.

4. The method of claim 3, wherein the step of identifying a set of hardware dump information elements comprises identifying a complete set of static arrays if the dump mode is a complete dump.

5. The method of claim 3, wherein the step of identifying a set of hardware dump information elements comprises identifying a subset of static arrays if the dump mode is an abbreviated dump.

6. The method of claim 1, wherein the step of identifying a set of hardware dump information elements comprises identifying a set of static arrays.

7. The method of claim 6, wherein the set of static arrays comprises a component static array for each component to be scanned.

8. The method of claim 7, wherein each component static array comprises a set of constants, each constant representing a hardware dump information element to be collected.

9. The method of claim 1, wherein the step of building the dump list comprises building the dump list based on the set of hardware dump information elements.

10. The method of claim 1, wherein the hardware information elements comprises at least one of a scan ring, a trace array, cache contents, and cache directory contents.

11. An apparatus for executing a hardware dump, comprising:

a memory; and

a processor, coupled to the memory, wherein the processor identifies a set of hardware dump information elements to collect; calculates an amount of memory to allocate for a dump list based on the identified set of hardware dump information elements; allocates a portion of the memory corresponding to the calculated amount; and

builds the dump list in the allocated portion of the memory.

12. The apparatus of claim 11, wherein the processor further collects the hardware dump information elements; and saves the collected hardware dump information elements in the memory.

13. The apparatus of claim 11, wherein the processor determines a dump mode and identifies the set of hardware dump information elements based on the dump mode.

14. The apparatus of claim 13, wherein the processor identifies a complete set of static arrays if the dump mode is a complete dump and identifies the set of hardware dump information elements using the complete set of static arrays.

15. The apparatus of claim 13, wherein the processor identifies a subset of static arrays if the dump mode is an abbreviated dump and identifies the set of hardware dump information elements using the subset of static arrays.

16. The apparatus of claim 11, wherein the processor identifies a set of static arrays and identifies the set of hardware dump information elements using the set of static arrays.

17. The apparatus of claim 16, wherein the set of static arrays comprises a component static array for each component to be scanned.

18. The apparatus of claim 17, wherein each component static array comprises a set of constants, each constant representing a hardware dump information element to be collected.

19. The apparatus of claim 11, wherein the processor builds the dump list based on the set of hardware dump information elements.

20. The apparatus of claim 11, wherein the hardware information elements comprises at least one of a scan ring, a trace array, cache contents, and cache directory contents.

21. A computer program product, in a computer readable medium, for executing a hardware dump, comprising:

instructions for identifying a set of hardware dump information elements to collect;

instructions for calculating an amount of memory to allocate for a dump list based on the identified set of hardware dump information elements;

instructions for allocating the calculated amount of memory; and

instructions for building the dump list in the allocated memory.